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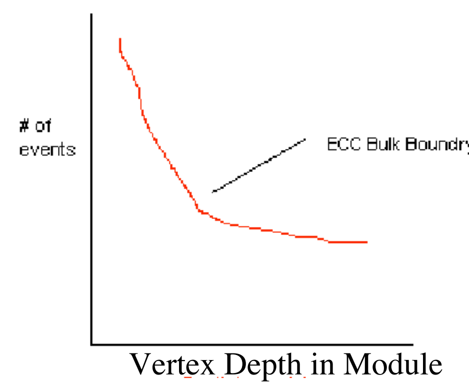
## Mean energy of tracks produced in events with backscattered tracks.

- Will use range to determine mean energy of these tracks
  - Plot number of events with observed backtrack in SFT versus vertex location
  - Events with vertices deeper (relative to the upstream side) in the emulsion should have more backtracks ranged out.

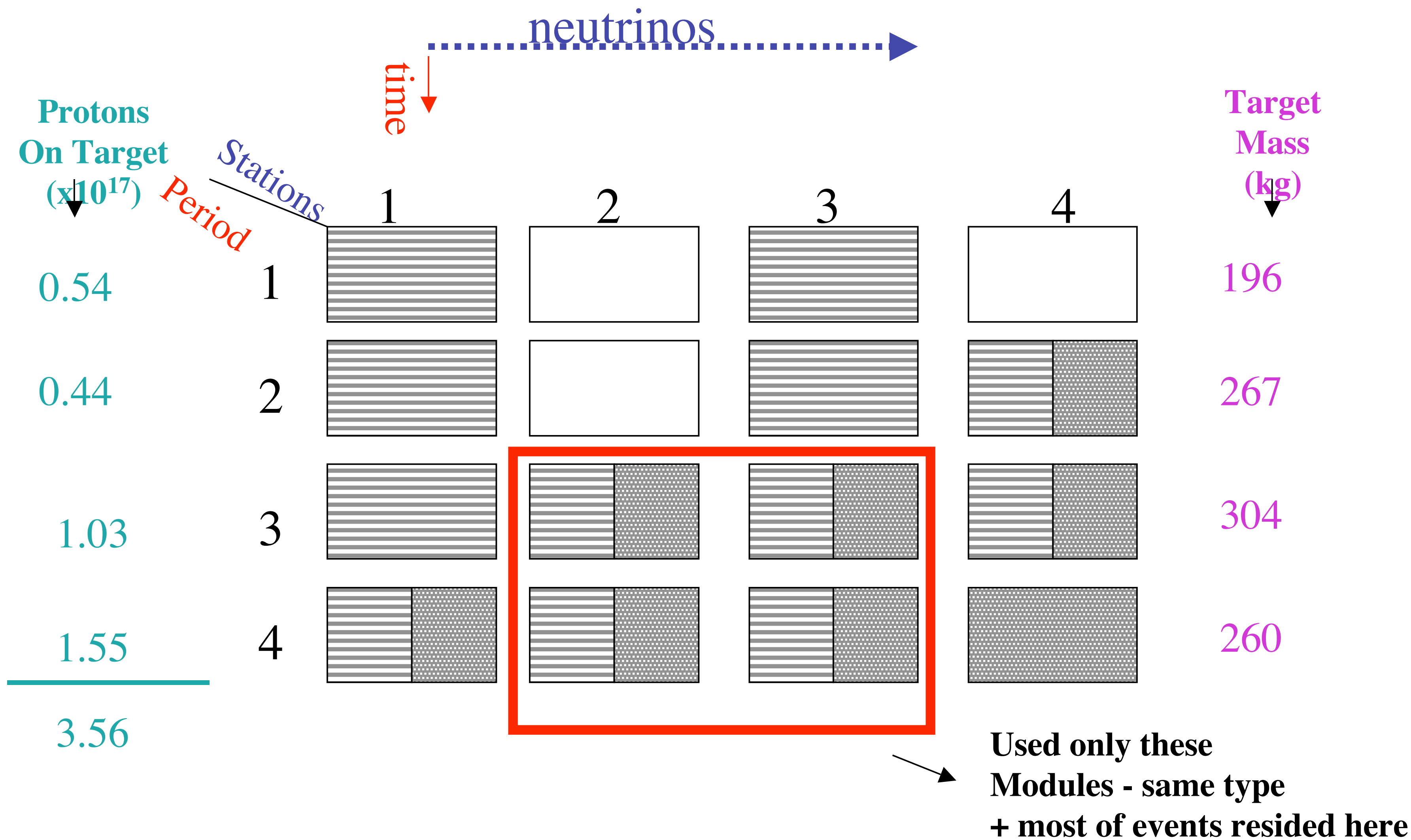
- Problems:

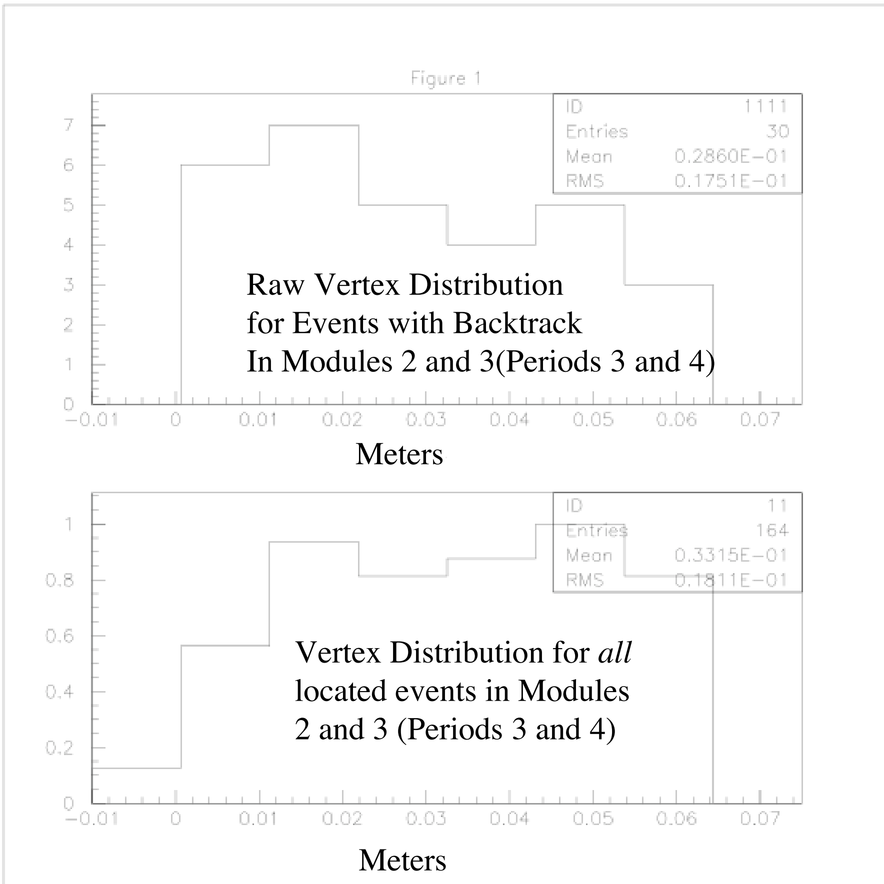
  1st: Most modules(i.e. those with most events) are of the ECC/bulk type therefore one expects the distribution to have the following shape:

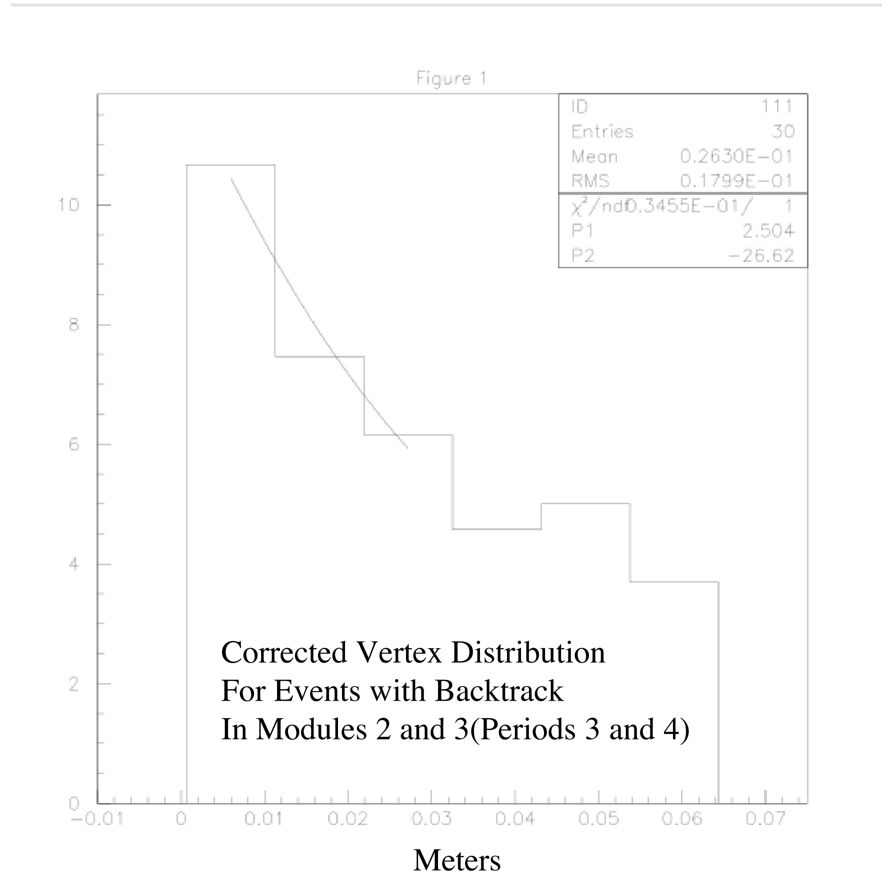



  2nd: The location efficiency is not flat in *z*.

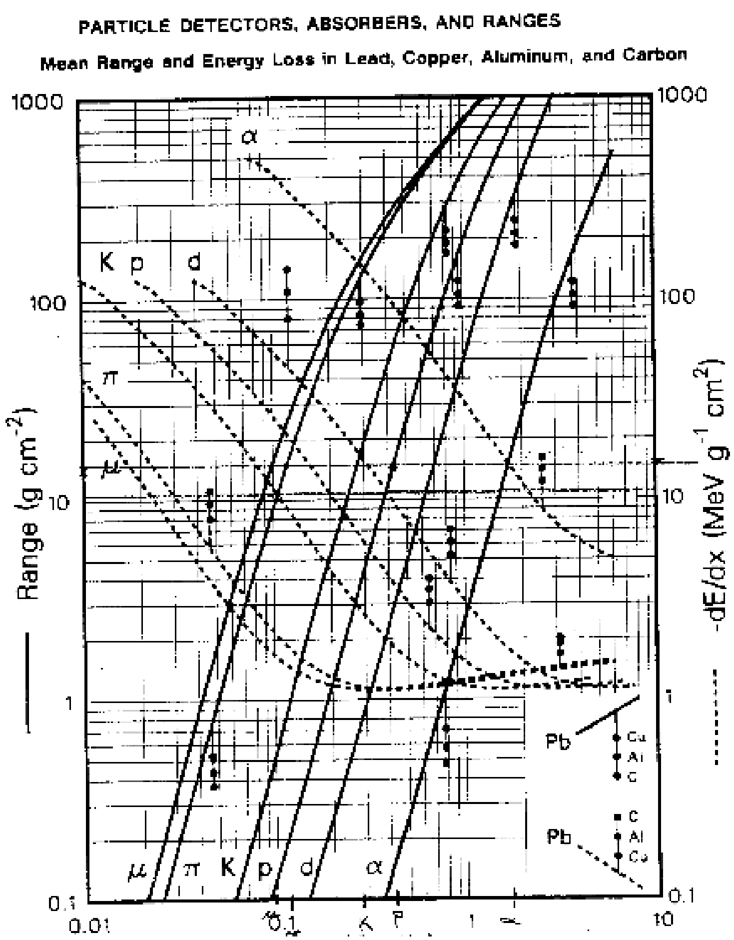
# Target Configurations






Result of fit for upstream half of module: $N(x) = N_0 e^{(-x/3.75cm)}$




Some of our inefficiency could be related to scanning rejection of primary vertices?

Range defined as the amount of material needed(in thickness) to reduce the initial flux by a factor of 2.

Upstream portion of these modules is ECC: ~half iron

Therefore the mean range for the particles produced in backscatter is ~1.3 cm of iron (or ~10.2 g/cm$^2$)

If proton: <P> ~ 400 MeV/c
If pion: <P> ~130 MeV/c

If located in emulsion can tell by *dE/dx* - i.e. grain density